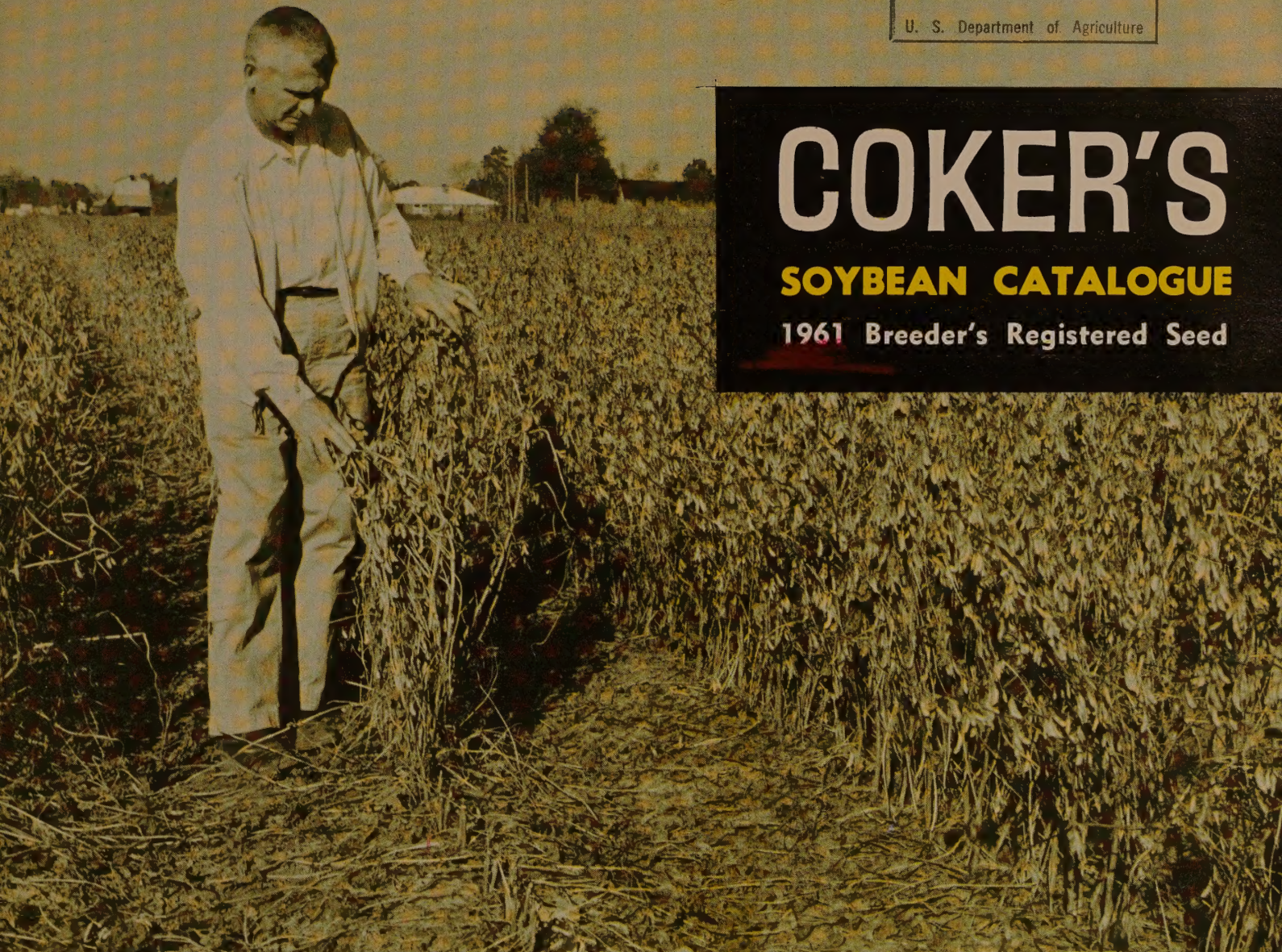
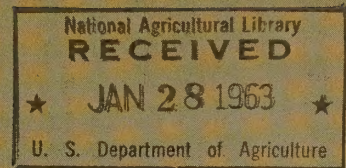


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COKER'S

SOYBEAN CATALOGUE

1961 Breeder's Registered Seed

Henry W. Webb, breeder of Coker's Hampton soybean, in a field of this new variety on Coker's farms in Hartsville.

Introducing for 1962!

HAMPTON

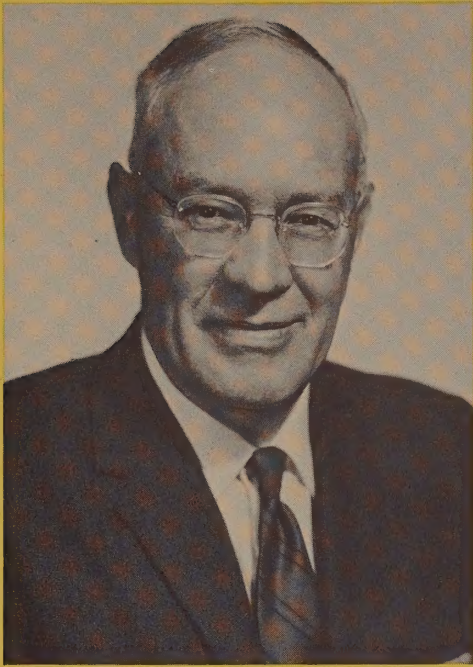
A High Yielding, Disease and Shatter Resistant Variety for the Southeast



COKER'S PEDIGREED SEED CO.

HARTSVILLE, SOUTH CAROLINA

The South's Foremost Seed Breeders



ROBERT R. COKER

TO SOYBEAN GROWERS:

The 1961 soybean crop of the United States is estimated to be 700 million bushels, valued at more than 1½ billion dollars. Soybean acreage and yields per acre have shown a phenomenal increase during the past 15 years, but in no other part of the country has the expansion in production equaled that which has taken place in the Southeast in the very recent past. As an example, South Carolina has increased the value of its soybean production one hundred times since 1945. That year our state produced 70,000 bushels of beans from 10,000 acres, for an average yield of 7 bushels per acre and a value of a quarter of a million dollars. In 1961 acreage had increased to 558,000, yield per acre to 20 bushels, producing more than 11 million bushels valued at better than 25 million dollars.

Our company has carried on soybean breeding work in a limited way since 1925. However, recognizing the increasing importance of soybeans as a southern cash crop, our breeding program was greatly enlarged and intensified beginning in 1952 under the direction of Dr. J. W. Neely, Vice President and Research Director of our company.

For 1962, ten years after our enlarged breeding program was effected, we are pleased to announce the introduction of an outstanding new soybean variety. This new variety has been named Hampton in honor of General Wade Hampton, outstanding Confederate war cavalry leader and distinguished South Carolina Governor and Senator. Our Hampton soybean was developed largely through the efforts of Mr. Henry W. Webb, in charge of our soybean breeding program since 1952. Associated with Mr. Webb in soybean research is Mr. John D. Hicks, Jr., Assistant Breeder.

Sincerely,
ROBERT R. COKER, President

New Variety Named For Distinguished Southerner

Our new Hampton soybean derives its name from a distinguished Southern planter, soldier, statesman—Lieutenant General Wade Hampton. General Hampton's service to the South during and after the War Between the States is one of the better known stories of Southern history. Nineteen days after the surrender of Fort Sumter to Confederate forces, Hampton issued a call for 1,000 South Carolina volunteers to form a legion of Southern troops.

He commanded the Hampton Legion at First Manassas in 1861, the first general battle of the war. It was the beginning of a brilliant career which in 1864, following the death of General J. E. B. Stuart, saw him appointed Chief of Southern Cavalry by General Robert E. Lee.

After the war he led in the Reconstruction of the South. In 1876 he was elected governor of South Carolina. Following a distinguished career as governor, he was elected United States Senator from South Carolina.

Among all Southern leaders, General Hampton is revered as one of the ablest and most dedicated.



GENERAL WADE HAMPTON

From reprint of photo taken in 1864 by Anderson-Cook Galleries, Richmond, Virginia.

BREEDING SOYBEANS For The SOUTH

Coker's soybean breeding program dates back to the mid-twenties when Dr. George J. Wilds initiated a program to develop improved bean varieties primarily suited to the production of forage. The first variety, Black Beauty, was released in 1931 as a combination hay and seed bean. Numerous types were selected from various hybrid combinations through the years that followed. One of the most notable of these is the Yelnanda, a late season type well adapted to Southeastern conditions and the two crop system where beans are planted following early season harvest of small grain. Yelnanda was first released in 1947 and reintroduced in 1957 to meet the increased demand for a bean of its type. Another notable achievement of this well planned and pursued program of scientific breeding was the development of Majos. Although never released for general planting it has proved to be an outstanding source of germ plasm and has made a significant contribution to our present program.

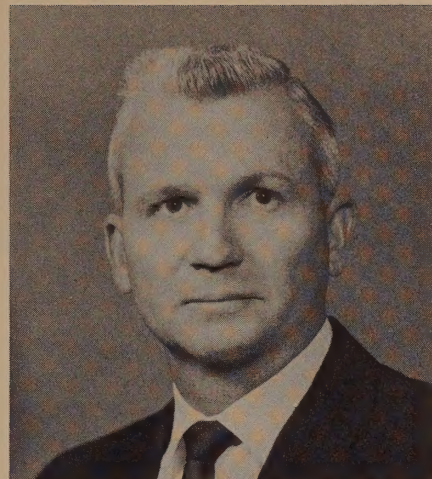
SOYBEAN RESEARCH EXPANDED

While many excellent varieties were being developed by federal and state experiment station breeders in other areas of the South, the sudden increased emphasis on beans in the early fifties found the Southeast woefully lacking in varieties designed to meet present day needs. As a result, we immediately began an expansion of our breeding and research program to enable us to supply the varieties needed. The first step was to combine through hybridization the best of the early maturing, disease resistant, quality beans with our locally adapted later types. The cross of Lee and Majos has proved to be an unusually successful combination. From 1953 until 1962, we have spared no effort in selecting, testing, and increasing seed stocks of this cross as well as crosses involving Lee, Yelnanda, Jackson, and several outstanding experimental lines. As a result, Coker's is able to offer for farmer planting in 1962, Hampton, developed from the Majos x Lee cross made in 1953. In addition to this we anticipate the release of Stuart in 1963 and possibly other new types by 1964 and 1965.

FUTURE IS BRIGHT

We, at Coker's, are confident of the bright future of soybeans in the South and want to assure growers of this region of our continued efforts to develop new and better varieties—varieties which will enable them to realize a higher per acre profit and a better competitive position with the more advanced bean production areas of the United States.

HENRY W. WEBB
Plant Breeder, In Charge
Soybean Research



HENRY W. WEBB

A section of our soybean breeding nursery showing a soybean variety test. Our soybean work is one of the most extensive and comprehensive of its kind in the South.



We Proudly Present



Hampton, a new and outstanding variety of soybeans, is being released for planting by Southeastern growers in 1962. This release is the result of an all out effort to provide producers of this area with varieties needed to meet local conditions.

ORIGIN

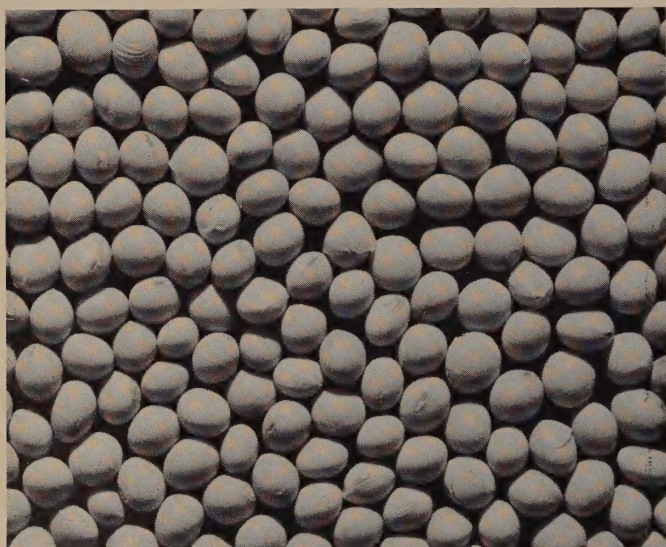
Hampton was selected from a cross of Coker's Majos and the Lee variety which was developed by the U. S. D. A. breeding program. This has resulted in an outstanding combination of germ plasm and offers almost unlimited opportunities for selection of improved types. Although the Hampton is the first release of this cross it is anticipated that several other equally superior types with slightly different growth habits and adaptation will be offered in the near future.

PRODUCTION

Hampton has consistently yielded slightly more than the best locally adapted variety. In early planted tests at Hartsville over a three year period (1958-1960) Hampton produced 49.1 bu. per acre compared with 46.6 for Jackson. In 1961 our production fields regularly cut above 40 bu. in spite of the severe drought experienced in this area. Hampton, since it is not a showy bean, always yields far more than its appearance would suggest.

SHATTER RESISTANCE

Shatter resistance is one of the most outstanding characteristics of Hampton. In this variety Coker's breeders have combined the exceptionally high shatter resistance of both parents, Majos and Lee, into a variety which will stand almost indefinitely without seed popping out on the ground. Observations made in our nursery plots in early spring show negligible losses.



Actual Size of Hampton Beans

DISEASE RESISTANCE

We have successfully transferred resistance from the Lee variety to Hampton for the major leaf diseases. This included resistance to bacterial pustule and wild fire, the diseases which cause our major losses. In addition Hampton has high resistance to target spot.

QUALITY

Hampton is equal to Lee and Jackson in oil content and usually slightly better in seed quality. Protein level is near Jackson.

ADAPTATION

Having inherited many of the traits of its parents, Hampton is extremely well suited to Southeastern conditions. In general this area parallels the adaptation of Jackson except where maturity is a factor. Hampton being 2 to 6 days later should not be planted in an area where Jackson maturity approaches the critical date of average killing frosts, or in areas where Jackson is inclined to make excessive vegetative growth. On the other extreme later types should be planted in areas where Jackson regularly makes too little growth. Within this area, we recommend planting on fertile soils with a pH near 6 to 6.5 and adequate quantities of available N, P, and K. Due to its response to high levels of fertility and its moderate height characteristics we do not usually recommend planting on light sandy soils or after small grain. These plantings should be made with our Yelnanda variety.

PLANTING DATE

We recommend planting Hampton at approximately the same dates and under the same conditions as Jackson. This generally means starting in mid May for the upper area of adaptation and continuing into early June in some of the more southern areas. If experience has indicated that certain dates or conditions such as very light soils do not produce satisfactory yield or plant height of Jackson, plantings of Hampton should also be avoided.

MATURITY

Hampton usually matures and is ready for harvesting within 2 to 6 days after Jackson. Since it is well suited to the same planting date this allows a longer growth period. However, it still matures sufficiently early for harvesting before excessive deterioration and before the season when we usually encounter considerable bad weather. If harvesting should be delayed the built in shatter resistance prevents unnecessary losses.

HARVESTING

The Hampton variety has overcome many of the objectional characteristics of our later varieties in harvesting. When planted as recommended Hampton grows 30" to 45" tall, has a small stalk, is easy to cut, and has a minimum amount of stalk and vine to run through the combine. As a result harvesting equipment may need minor adjustment when going into fields of Hampton from other varieties.

IMPORTANT NOTE

Our Hampton soybean has been completely resistant in tests and screenings at many locations and over a period of several years, even during exposure to heavy infestations of the diseases mentioned herein and has not been significantly affected by any other diseases. However, we, like any other conscientious breeder, can not guarantee a soybean variety to be completely resistant to any disease because of the possibility of the development of new physiological races of the mentioned disease; the incident of diseases not present in our extensive tests; the possible effect of adverse seasonal conditions, fertilizer and cultural practices; and the occurrence of complexes that have not been encountered in the tests.

ACKNOWLEDGMENT

Coker's Pedigreed Seed Company would like to express its sincere appreciation to Dr. E. E. Hartwig, agronomist in charge of the Southern Regional Soybean program of the U. S. D. A., at Stoneville, Mississippi for his contribution in making the cross of Majos and Lee for us. We also want to thank the Federal and State Cooperators of the Southern Region who, under Dr. Hartwig's direction, conducted the regional performance tests in which Hampton was included in 1959, 1960 and 1961. Without their assistance in the evaluation of our advanced experimental lines, their release would be much delayed and adaptation to many areas could not readily be determined.

HAMPTON DESCRIPTION

PLANT TYPE: Intermediate type, medium to medium tall, erect with excellent resistance to lodging. Slightly shorter than Jackson.

POD COLOR: Gray pubescence on a brown pod, sometimes quite dark due to weather discolorations.

MATURITY: Medium late, usually 2-6 days later than Jackson and 4-6 days earlier than Yelnanda.

SEED COLOR: Bright yellow, with very good quality. Some variation for hilum or eye color exist in present strain but it is expected that reselection will result in all seed having a light colored eye.

SHATTER RESISTANCE: Outstanding, better than any variety presently grown in this area. The best of any material observed.

ADAPTABILITY: Suited for a rather wide range of planting dates in the Southeast. General recommendations are for planting between May 15 and June 10, depending on area and soil types. Not generally suited for planting after grain.

YIELD: Yields have been excellent, generally comparable to Jackson, or better in area of adaptation.

OIL CONTENT: High, equal to any variety grown in area. Generally ranges between 21 and 22 percent.

SEED SIZE: Medium, slightly larger than Jackson.

DISEASE RESISTANCE: Excellent, resistant to bacterial pustule, wildfire, and target spot.

See Price List Page 15

Our soybean breeder, Henry Webb, left, shows M. D. Lamberth, sales manager, a plant of Hampton. Note the prolific yield of this variety.



John Hicks, assistant plant breeder, in a field of Hampton beans on our Hartsville farms. The productive yield and shatter resistance of this variety are well illustrated in the picture. This field was planted May 25, harvested Jan. 2 with a yield of 48.5 bushels per acre. There was no shattering.



**COMPARATIVE AVERAGES OF FOUR SOYBEAN VARIETIES IN EARLY¹ AND LATE SEASON PLANTINGS IN 1958, 1959, AND 1960
COKER'S PEDIGREED SEED COMPANY, HARTSVILLE, SOUTH CAROLINA**

VARIETY	Yield Per Acre		Maturity		Height		Lodging	Shattering	Seed Quality	Weight/ 100 Seed	Chemical Analysis)	
	Early	Late	Early	Late	Early	Late					Oil	Protein
	(Bu.)	(Bu.)	(Date)	(Date)	(in.)	(in.)	(Index)	(Index)	(Index)	(Grams)	(Pct.)	(Pct.)
Hampton	49.1	34.6	11/6	11/8	41	28	2.0	1.0	1.7	17.2	21.8	38.8
Jackson	46.6	29.4	11/4	11/3	43	31	2.4	3.2	2.0	16.8	22.2	40.1
Lee	43.2	29.6	10/27	10/25	31	25	2.1	1.2	3.0	13.8	21.8	41.7
Yelnanda	37.4	27.9	11/10	11/10	48	35	3.4	1.0	2.7	20.5	19.6	44.9

¹Early Test—1958, May 31
1959, June 3
1960, June 2

Late Test—1958, July 7
1959, July 2
1960, June 30

AVERAGE PERFORMANCE OF THREE SOYBEAN VARIETIES FROM U.S.D.A. UNIFORM GROUP VIII NURSERY; YIELD, LODGING, AND MATURITY FROM SIX LOCATIONS¹; HEIGHT AND SEED QUALITY FROM FIVE LOCATIONS; AND OTHER DATA FROM THREE LOCATIONS, IN THE SOUTHEAST IN 1960.

(Data calculated by Coker's Pedigreed Seed Company from results of the Cooperative Uniform Soybean Tests, 1960, Part II Southern States, using locations in area where Hampton is best adapted.)

VARIETY	Yield Per Acre	Height	Lodging	Maturity	Weight 100 Seed	Seed Quality	Chemical Analysis	
							Oil	Protein
	(Bu.)	(in.)	(Index)	(Date)	(Grams)	(Index)	(Pct.)	(Pct.)
Hampton	39.7	33	1.8	11/1	18.3	1.6	23.0	39.3
Jackson	38.0	37	1.7	10/31	16.6	1.5	22.9	39.9
Bienville	34.3	39	2.3	11/2	18.6	1.3	21.9	41.9

¹Locations: Willard, North Carolina..
Hartsville, South Carolina

Blackville, South Carolina
Experiment, Georgia

Tallassee, Alabama
Tifton, Georgia



Robert C. Culpepper, standing in the field, is a contract grower for Coker breeders in the production of Hampton beans. The general plant growth of this variety, with beans placed relatively high from the ground level, combine with ease of cutting and shatter resistance to greatly minimize field losses from combine harvesting.

EXCELLENT FIELD PRODUCTION RECORDS ON HAMPTON SOYBEANS

We have been more than gratified by the field performance of our new Hampton soybeans as evidenced by the excellent yields from our 1961 crop acreage. One of our contract seed growers, Mr. Burwell Manning, whose statement appears on this page, produced what is perhaps the best crop grown on a comparable acreage in South Carolina this past season with our Hampton variety. His yield from 135 acres was 5,575 bushels.

Mr. J. Wilson Coker, another of our contract seed growers, averaged 40 bushels per acre with Hampton beans against 31 bushels for Jackson planted on similar land at approximately the same planting date. Mr. Clarence Atkinson averaged 38.6 bushels per acre on 70 acres of Hampton, which was 10 bushels per acre more than the other variety planted by him.

The highest yield per acre made with our Hampton soybeans this past season was a seed production field on our own seed breeding farms, planted May 25, which produced 48½ bushels per acre.

These excellent crops were made in spite of exceptionally dry weather experienced during September and October which naturally reduced yields from what they otherwise would have been. We believe that our Hampton bean has the finest yielding potential of any variety we have ever seen for its area of adaptation.

BURWELL D. MANNING, JR.
PASTURELAND FARMS
1343 KATHWOOD ROAD
COLUMBIA, SOUTH CAROLINA

December 15, 1961

Dear Mr. Coker:

We were highly pleased with the results from growing your new Hampton soybeans this past season. In spite of excessively dry conditions during September and October, we produced 5575 bu. from 135 acres for an average yield of 41½ bu. per acre. This yield from only 76 bu. of seed is evidence enough that this new bean is a high yielder and has both standability and good shatter resistant qualities.

My sincere thanks,

Burwell D. Manning, Jr.

Coker's Pedigreed YELNANDA

1961 Breeder's Registered Seed

We are happy to offer to growers of the Southeast our newest strain of Yelnanda, the result of eight years of intensive selection and testing. This new strain while typical of Yelnanda is characterized by improved yields, higher shatter resistance and more disease tolerance.

Yelnanda is especially well adapted to southeastern conditions where many growers need a variety for late planting following small grain or on very light sandy soils. This variety is made to order for these conditions because of its vigorous growth characteristics, delayed fruiting habit, and excellent shatter resistance. However, it is just as important that we recognize the limitation of Yelnanda. Due to this same vigor and the delayed fruiting, we do not recommend planting Yelnanda where an earlier type such as Hampton can be produced satisfactorily.

HIGH IN PROTEIN

While our Yelnanda compares favorably with other late types in oil content it is the highest in protein of any variety grown in this area. This is very important in our increasing needs for a source of high quality protein for feeds.

It is always a good practice to plant more than one variety to spread planting date, risk of unseasonable weather during the growing season, and to allow harvesting over a longer period of time. Yelnanda fits into this program perfectly and should be considered by every large soybean producer.

DESCRIPTION

PLANT: Tall, erect.

MATURITY: From medium late to late.

COLOR: Yellow, with light "eye".

SHATTER RESISTANCE: Outstanding; not equalled by any other bean in its maturity group.

ADAPTABILITY: Especially suited for planting after small grain or for planting in early June in the Coastal Plains.

OIL CONTENT: Usually 18% to 20%.

PROTEIN: Highest of adapted varieties—44% to 45%.

YIELD: Equals or exceeds that of any other bean of comparable maturity.

SEED SIZE: Large and uniform.

See Price List Page 15

IMPROVED YELLOW SOYBEAN FOR LATE PLANTING IN SOUTHERN COASTAL PLAINS



Tall, erect plants with pods clustered well off the ground assure complete, easy combining of our Yelnanda Soybean, with Mr. Webb, left, is Dr. J. W. Neely, in charge of agricultural research.

Importance of choosing a late maturing variety for late planting is demonstrated here by Henry Webb, Coker plant breeder. Note extra height and larger pods on Yelnanda, shown at right in our late planted nursery.



For 1963! STUART

From the cross which gave us Hampton we have developed another extremely promising variety—Stuart. Although not available for 1962 planting plans call for the release of Stuart in 1963. This variety promises to fill a very important need in our soybean program for a variety of the Yelnanda type with higher yields, better disease resistance, more shatter resistance, and adapted to slightly earlier plantings. The release of this variety will provide Southeastern growers with a fall range of maturity type to meet most conditions encountered in this area.



This is **STUART**—another outstanding soybean variety to be released by Coker breeders in 1963. This increase field was grown on our Hartsville farms in 1961. Stuart is a mid-season bean suited for planting between the dates recommended for Hampton and Yelnanda.

PARENTS OF HAMPTON Two Outstanding Sources of Germ Plasm

The two parents of the Hampton soybean variety, Lee and Majos, have been proven to be outstanding sources of germ plasm.

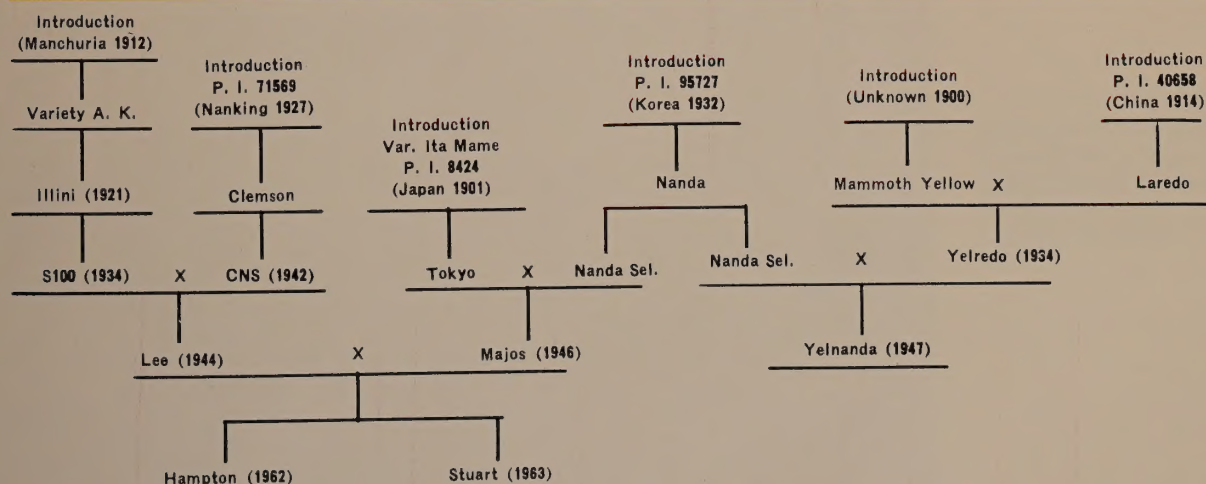
LEE WAS developed by Dr. E. E. Hartwig of the U. S. Department of Agriculture and is the result of selection within the progeny of a cross involving S-100 and C. N. S. Lee is characterized by very high resistance to several diseases, including bacterial pustule and wild fire. It is medium early, high yielding, and shatterproof and it stands up well in the field.

MAJOS was developed by Mrs. Mary Coker Joslin by selection within the progeny of a cross made by her and involving Tokyo,

an introduction from Japan, and Nanda, an introduction from what is now Korea. Majos is a variety that is characterized by an inherited photo-period reaction that makes it particularly well suited for planting after the harvesting of small grain. It is high yielding, and shatterproof.

LEADING FEDERAL and State scientists, who are engaged in soybean research and have seen and tested Hampton and other varieties developed by Coker's Pedigreed Seed Company from the Lee-Majos cross, agree with our breeders that the two parents are valuable sources of germ plasm and represent outstanding contributions to varietal improvement.

PEDIGREE CHART OF MAJOS, YELNANDA, HAMPTON, AND STUART SOYBEANS COKER'S PEDIGREED SEED COMPANY



SOME SUGGESTIONS FOR OBTAINING

Select a Good Fertile Field—Soybeans can be a top cash crop, and should be planted on fields of high residual fertility. With proper handling we can expect to produce 35 to 45 bushels per acre. Best production is obtained with pH levels of 6.0 to 6.5 and a proper balance of Nitrogen, Phosphorus, and Potassium. Highest yields cannot be obtained if any of these elements are deficient.

Use the Best Variety for Your Soil Condition and Date of Planting—The selection of the best variety for your individual conditions is all important. Soybeans generally have a very limited range of adaptation and great care should be used to select a variety of proven performance in a given area. If full season production is planned a relatively early variety should be used. If plantings are to follow small grain a variety should be selected which will delay fruiting, placing the pods higher off the ground and maturing later.

Begin Weed Control Program Before Planting—Early cultivation will cause many weed seed to germinate. These can be destroyed by a second cultivation just prior to planting. It is also very important to plant at the proper time. Savings in production costs can easily be realized by delaying planting until conditions are favorable for rapid emergence and fast early growth. If beans are planted too early, before soil temperatures reach 65°-70° F, as many as 12-14 days may be required for emergence

as compared with 5-7 days after favorable soil temperatures are reached.

This delayed emergence results in an immediate weed control problem. Beans from delayed plantings (May 15 to June 5) come up faster and grow off quicker providing early ground cover and maximum weed control.

Use Good Seed of Known Origin—Be sure seed obtained for planting are high quality and meet the minimum standards for purity and germination. It is always a good bet to know your seedsman and make sure you obtain only seed of locally adapted varieties, free of mixtures and weeds. Seed should be cleaned, treated, of uniform size and free of cracked seed coats. A good stand is the first step to good production.

Fertilization Is a Good Practice—Although it is difficult to show a definite response to applied fertilizer on good soils we believe it is a sound practice to follow. There is some indication that fertilizing pays on light soils. If there is any question concerning pH, or relative levels of Nitrogen, Phosphorus and Potassium, soil tests should be made. It is very important that these be maintained at the proper level. At our present yield levels we are removing from our soils the following amounts of these elements per acre of beans—Phosphorus, 8-10 lbs., Potassium 25 lbs., and Calcium 3-4 lbs.

A comparison of Hampton and Jackson illustrating the difference in plant height, fruiting habit and shatter resistance of these two varieties.



GREATER PROFITS GROWING SOYBEANS

Inoculation Is Good Insurance—There is no substitute for seed inoculation. If satisfactory yields are to be obtained and the soybean plant is to perform its job in soil building, a good race of nitrogen fixing bacteria must be present. It is good insurance to always inoculate soybean seed.

Row Width—Under Southern conditions experimental data show that best yields can be obtained with rows 36 to 42 inches. This not only gives top yields but simplifies cultivations by the use of a standard row width for all crops. In late season plantings closer rows may be considered in order to obtain better ground cover and weed control if the adjustment of cultivating equipment is not a problem.

Keep ahead of the Weeds—Cultivate with a rotary hoe or similar equipment shortly after beans come up. Repeat in 8-10 days. This usually gives good weed control and leaves rows in good condition for use of regular equipment. Since little is known concerning chemical weed control you should check with your county agent or nearest experiment station before using herbicides on soybeans.

Watch Closely for Insects—Insects can seriously damage our bean crop in the Southeast. Frequent checks of fields should be made to determine need for insecticides. In general soybean insects fall into two groups, 1. leaf feeders and 2. pod feeders.

The principal insects and insecticides recommended for their control are as follows:

Group 1

Leaf Feeders

Mexican bean beetle—Methyl Parathion

Cabbage looper—Endrin

Velvet bean caterpillar—DDT

Group 2

Pod Feeders

Corn earworm—DDT

Stinkbugs—Methyl Parathion

While damage from foliage feeders is usually quite obvious and can be seen without detailed examination such is usually not the case with pod feeders. Frequent examinations of plants should be made during flowering and early pod set to be sure the corn earworm is not at work. While damage from stinkbug may not be as noticeable they can greatly reduce the price of beans. Thus a few timely applications of the proper insecticide can be very profitable.

Combining Can Affect Quality—Soybeans should be harvested as soon after maturity as moisture and weather conditions will permit. Usually 14 per cent is considered safe for combining and below 13 percent for storage. Many combines have been operated for years without proper adjustments. Be sure your equipment is adjusted to do the most efficient job. Frequently losses \$8 to \$10 per acre are experienced. This is equal to the cost of the best planting seed available.



A comparison of Hampton and Yelnanda illustrating difference in plant characteristics. Note the more compact fruiting habit and reduced vegetative growth of Hampton as compared with Yelnanda.

The effect of light is illustrated in this picture showing the relative height of a tall late maturing experimental strain, left, and Lee, center, an early short type. The segregating material, right, is from a cross of the other two. From this cross, our breeders hope to develop a taller early type bean much needed for Southeastern conditions.



EFFECT OF DAY LENGTH ON SOYBEANS

IT HAS LONG been known that soybeans are extremely sensitive to day length. Although it has recently been learned that in reality it is the length of night, the effect on our local varieties remains the same. This reaction to day or night length has a definite effect on soybean varieties and to a large extent determines the area of adaptation and time of planting of each variety.

IT IS THIS relationship between an individual variety and length of night which determines whether a variety is considered early or late. When soybeans reach the length of night to which that variety is sensitive, vegetative growth stops and flowering begins. Therefore, an early variety is one which is sensitive to shorter night, requiring fewer hours of darkness to cause blooming than does a late variety. A late variety would continue to grow, and would not reach its critical period until the nights became longer.

WE NOW SEE that an early variety is one which blooms

early. It is also clear that delayed plantings of an early variety simply reduces its growth period and results in a shorter plant. This frequently causes large and unnecessary losses in production from lower yields and beans left on the stalk near the ground.

A LATE VARIETY is one which blooms later in the summer allowing a longer growth period for extra height, making it better suited to later planting. This also is a warning against planting a late type too early since an extended growth period usually means extra rank growth which falls down more and is difficult to combine.

IT IS ALL important that we select the proper variety for a given planting date since this is going to play a major role in determining harvestable yields. We should also bear in mind that in the Southeast a given variety generally matures at a predetermined date regardless of when planted.

EFFECT OF LIGHT ON PLANT GROWTH AND EARLY BLOOM

The photograph (right) taken mid November is an excellent illustration of the effect of length of day or night on soybean growth, early bloom, and maturity. This field of Stuarts planted in early July, following oats shows the effect of artificial light from sign in background. These lights were timed to come on before dark, burning through the night and until after sunrise. Plants nearest sign were exposed to continuous light. They had not bloomed and were still growing while beans only a short distance away were ready for the combine.

The effect of supplementary light on soybean development is more clearly illustrated by four individual plants, below, grown at varying distances from the source of light.

1. Plant on left was far enough from lights that it developed normally, maturing about November 1.

2. Plant, second from left, was grown slightly nearer lights than mature plant and while a number of well developed pods are visible, delayed maturity is a clear indication of delayed flowering, a result of supplementary light.



3. The plant third from left, and grown nearer lights, shows indication of still greater delay in flowering by the presence of a few undeveloped pods.

4. Plant on right received full effect of 24 hour per day light and until killing frost in mid November was still growing with no indication of flowering. This plant was still waiting on nights long enough to cause an end to vegetative growth and initiation of blooming.



COKER BREEDING MAKES THE DIFFERENCE!

By J. Winston Neely, Ph.D., Vice-president and Director Agricultural Research

OUTLINE OF SOYBEAN BREEDING PROGRAM

The outstanding performance of Coker soybeans is the result of the scientifically planned and carefully conducted breeding program in which they were developed. The program requires at least 11 years of intensive hybridization, selection, testing, and seed increase.

In addition to a well planned breeding program, it is necessary for our soybeans breeders to have: (1) an understanding of the manner in which characteristics of the soybean are inherited, (2) a knowledge of the characteristics that are desired, (3) information relative to the effect of weather, soils, day-length, and other environmental factors on the soybean plant, (4) proper equipment and facilities, and (5) efficient programs of varietal maintenance, seed increase, and seed distribution. It is an established fact that Coker's Pedigreed Seed Company very adequately meets all these requirements and is outstanding in being properly equipped in personnel, "know-how," facilities, and equipment to breed outstanding varieties and to release high quality planting seed.

OUTLINE OF BREEDING PROGRAM

The time required to develop and release a new and improved variety of soybeans at Coker's Pedigreed Seed Company is divided into two phases: (1) the preliminary stages and (2) the secondary stages.

1. The Preliminary Stages

To develop stocks and isolate lines we follow this schedule:

Year 1—Make crosses between commercial varieties, between commercial varieties and non-commercial breeding stocks, or between non-commercial breeding stocks.

Year 2—Grow 20-25, 1st generation plants.

Year 3—Grow massed 2nd generation of each cross. Select promising plants.

Year 4—Grow 1,000, 3rd generation plant-to-row progenies from individual selected and screened 2nd generation plants.

Year 5—Move selected and screened 3rd generation progeny rows into Year 3 of Secondary Stages of program and follow through years 4, 5, 6, 7, 8, and 9.

2. The Secondary Stages

The Secondary Stages of the Soybean Breeding Program are outlined here. The first two years involve preliminary selection of individual plants and the subsequent selection of plant-to-row progenies within established varieties of breeding stocks. These two years also involve the initiation of the maintenance program, which is very important in the overall program.

The procedure followed during the 3rd to 8th years of the Secondary Stages is concerned with the selection and discarding and with the seed-increases of these lines as

well as the lines that are moved from the Preliminary Stages to the 3rd year of the Secondary Stages. The Secondary Stages of the program are as follows:

Year 1—Select 3,000 plants.

Year 2—Grow 2,000 plant-to-row progenies (1/800 acre each)

Year 3—1/50 acre block of each of 50 strains.

Year 4—1/25 acre block of each of 20 strains that reach this stage.

Year 5—1/4 acre block of each of 10 strains that reach this stage.

Year 6—3 acre blocks of 3-5 strains of each variety that reaches this stage. (Breeder's Seed)

Year 7—50 acre blocks of one strain of each variety that reaches this stage. (Foundation Seed)

Year 8—1,000 acre increase of 1 strain of each variety that is to be released. (Registered Seed)

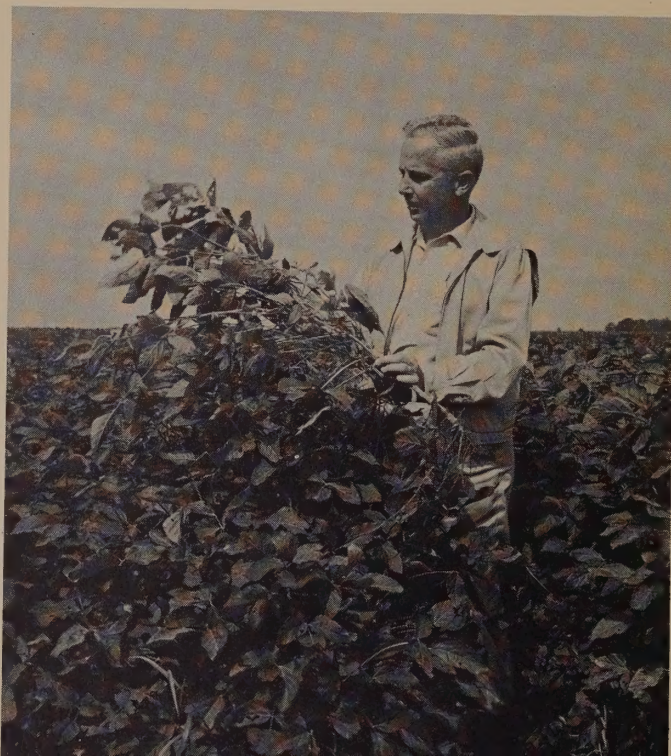
Year 9—Sell to certified seed growers or farmers.

The process is a continuous one. This means that within any given year all 13 stages of the program are in progress.

Replicated yield trials, disease screenings, and seed-quality determinations are conducted simultaneous with the selection and discarding and the seed increase procedures outlined here.

During the final years of the program new strains are tested by Federal and State Agricultural Experiment Stations. The results of these official tests are used as supplemental criteria for selection and discarding and for arriving at decisions regarding final increase and the release of planting seed to farmers.

The lush vegetative growth of Hampton is illustrated in this field of Hampton beans grown near Stuttgart, Ark. Shown in picture is Jake Hartz, Jr.



1962 SEASON PRICE SCHEDULE

Coker's Pedigreed **HAMPTON SOYBEANS**

Breeder's Registered Seed

1 to 10 bu.	\$10.00 per bu.
10 to 25 bu.	9.90 per bu.
25 bu. and up	9.75 per bu.

Coker's Pedigreed **YELNANDA SOYBEANS**

Breeder's Registered Seed

1 to 10 bu.	\$5.50 per bu.
10 to 25 bu.	5.45 per bu.
25 bu. and up	5.40 per bu.

Shipping or delivery charges to customer pre-paid. Soybeans bagged in one bushel bags.

TERMS and CONDITIONS

OUR RESPONSIBILITY

Our seed are all carefully tested for germination and purity before shipment. Attached to every bag of seed we ship is a card on which is printed the percentage of germination and mechanical purity of that particular lot of seed. Under no circumstances, however, can we be responsible for the germination of the seed after they have been planted for there are many reasons for imperfect germination of planted seeds other than their vitality. In no case do we give any warranty expressed or implied as to the productivity or performance of our seed.

OUR CLAIMS

The claims we make for our seed are based on their actual performance in our breeding plots, variety tests and increase fields. They are ALL bred, grown, prepared, tested and stored under our personal supervision and control.

EFFECT OF GROWING CONDITIONS

Our descriptions are based on the actual records that our varieties have produced in our tests, and they will show the same characteristics elsewhere under the same conditions. Drought or POOR CONDITIONS will result in a reduced yield and poorer quality—no matter what variety is planted.

YOUR PROTECTION

No seed is genuine "COKER'S" unless it bears our official OK tag under seal and our Registered "TRADE MARK." Protect yourself by insisting upon having only seed bearing our official OK tag and Registered Trade Mark.

Plant these Coker bred varieties

HYBRID CORN	TOBACCO	OATS	COTTON	WHEAT
Coker 67 (yellow)	Coker 316	Coker's Moregrain	Coker 100-A	Coker 47-27
Coker 71 "	Coker 128	Coker's Suregrain	Coker 124-B	Coker's Coastal
Coker 15 "	Coker 187-Hicks	Coker's Victorgrain 48-93	Delta Queen	
Coker 811 (white)	Coker 187			
Coker 911 "	Coker 156			
Coker 616 "	Coker 80-F			
	Golden Cure			

1962 SOYBEAN CATALOGUE FROM COKER'S

COKER'S PEDIGREED SEED COMPANY

DAVID R. COKER (1870-1936) FOUNDER



HARTSVILLE, SOUTH CAROLINA

Since 1902 — The South's Foremost Seed Breeders

